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# Collaboration for Conservation in Ankarana, Madagascar

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Madagascar is considered to be one of the twenty-five "biodiversity hotspots" on the planet (Myers et al. 2000; Conservation International 2007). Such hotspots hold high numbers of endemic species and face extreme threats to their natural habitats (Conservation International 2007). As a result, conservation and the establishment of protected parks and forests are crucial to the survival of the biodiversity in these areas. Many conservation plans, however, are created without consideration of the local people who also inhabit the land (Alcorn 1995). Some conservation strategies are then considered burdens or inconveniences by the local people they affect, partly because of the restrictions imposed upon local resource use (Sandy 2006). In order to examine this process, I focus specifically on lemur conservation in the region of Ankarana, northern Madagascar. To improve conservation strategies, I argue that collaboration is essential among sociocultural anthropologists, primatologists and the larger non-governmental organizations (NGOs) that create and implement conservation strategies.

The interviews that are discussed in this article were carried out during the 2010 field course in environmental anthropology offered by The University of Western Ontario's Department of Anthropology. This field course built upon an already existing collaborative project between The University of Western Ontario, Canada and l'Université d'Antsiranana, Madagascar. Participants included seven Canadian university students, seven Malagasy university students, two primatologists, three sociocultural anthropologists, and a professor of Anglo-American studies in Madagascar. Each Canadian student was partnered with a Malagasy student for the duration of the field course. The interviews described in this article were thus a collaborative effort with my research partner, Marie Ange Bevoavy. All of the people interviewed were, at the time, residents of Antsaravibe, a small town in the western region of Ankarana. For additional research and information on this collaborative project, please refer to Shauna Solomon's 2009 thesis project.

This article provides examples from the field course in northern Madagascar that illustrate why it is important to have an understanding of the local ways of living when creating national parks and protected areas. Knowledge obtained from and about people living near these protected areas will contribute to a better understanding of the ecosystem as a whole and its relationship with the local population. Information regarding these relationships will aid in the creation of successful strategies for environmental sustainability in Madagascar.

### *Lemur conservation in Ankarana*

The prominent authority over the maintenance and environmental protection of many national parks and reserves in Madagascar is known as ANGAP (The National Association for the Management of Protected Areas in Madagascar - Association Nationale pour la Gestion des Aires Protegees). ANGAP creates and implements conservation action plans all over Madagascar. The aims of ANGAP are to safeguard Madagascar's ecosystems, research the biodiversity of the island, develop environmental education programs for rural populations, promote commercial applications of Madagascar's biodiversity, and support sustainable development activities in the areas surrounding protected zones (ANGAP 2006). The Ankarana

National Park is one of the protected areas facilitated by ANGAP that our fieldcourse group visited while in the region. The Ankarana National Park is home to ten known lemur species and covers 18,220 ha of land (ANGAP 2006). Hunting and deforestation are strictly prohibited in areas protected by ANGAP. If locals are caught taking materials or game from the protected areas they are punished with either fines or imprisonment.

In this paper, I argue that better understandings of local knowledge and beliefs about lemurs and the forests are required in order to develop effective and more successful conservation plans. Effective conservation plans would not only protect and increase the lemur populations in the Ankarana region but would also be designed in such a way that does not impede upon the lives of the local people. To achieve this goal, conservation strategies should provide benefits such as incentives for local people to engage in such projects, rather than harsh consequences (Brosius, Tsing, and Zerner 1998).

***Anthropological collaboration***

In order to form a conservation strategy that benefits both the ecosystem and the local people who inhabit that ecosystem and its surrounding areas, useful information about each must be obtained. This is most effectively done through the collaboration of sociocultural anthropologists, primatologists, and the involved conservation organizations (Quiatt and Koster 1994; Riley 2006). Conservation strategies usually overlook local people in favour of focusing solely on 'nature', therefore it is appropriate to consider the difference between "Little Conservation" and "Big Conservation" efforts (Alcorn 1995). Alcorn (1995) defines "Big Conservation" as large-scale organizations (e.g. ANGAP) that implement conservation projects, often at the expense of the local people. "Little Conservation", on the other hand, takes place at the local level, in the day-to-day lives of the people (Alcorn 1995).

Within this article, the people of Antsaravibe are understood to represent those involved within "Little Conservation". For conservation strategies to be effective, however, aspects of both "Big" and "Little Conservation" are essential. Yet the mandates and goals of "Big Conservation" projects often conflict with the interests of local people (Gezon 1997a, 1997b). As a result, people become unhappy with "Big Conservation" projects because they restrict local access to natural resources (Alcorn 1995). This can be considered conservation at the expense of the local people and is not a productive or durable solution. What we discovered in Antsaravibe was that the "Big Conservation" organization, ANGAP, was negatively affecting the lives of the local people. Collaboration would enable anthropologists to communicate the local beliefs and viewpoints to larger conservation organizations so that these factors may be taken into consideration when designing projects for environmental sustainability.

Through collaborative anthropology we obtain better understandings of the different views that local people have with respect to lemur conservation and conservation in general. We learn about the daily practices and belief systems locals follow, which can then contextualize their interactions with the local environments unique to their culture and region. Combining this information with data on lemur ecology from primatology would create a better understanding of how the ecosystems in Ankarana function (Andriamalala and Gardner 2010; Sponsel 1997). People who live in the vicinity of protected areas undoubtedly influence the ecology of the surroundings. Successful resource management strategies necessarily

understand and incorporate local customs and traditional social systems of the surrounding areas to create effective conservation plans (Fritz-Vietta et al. 2009).

An example of such a situation can be seen in the community-managed protected area of Ankodida, located in south-eastern Madagascar (Gardner et al. 2008). This project was able to conserve Madagascar's unique biodiversity while also maintaining the culture and heritage of the region (Gardner et al. 2008). This is because the resource management of the protected area had been designed to accommodate the cultural, spiritual, and material needs of the local Tandroy tribe while simultaneously conserving the biodiversity in the area (Gardner et al. 2008). This project successfully linked sustainable solutions to the indigenous practices and value systems of the people (Kaufmann 2006). While culture can be seen as damaging to nature and something from which biodiversity must be saved, in reality the two are inseparable (Kaufmann 2006). Therefore, one should not be thought of in absence of the other.

***Conversations in Antsaravibe***

During our field course, we stayed in the small town of Antsaravibe for a total of two weeks. While here, my Malagasy research partner Marie Ange and I had many conversations with the local residents. Although Antsaravibe is approximately 20 km southwest of the main western entrance to Ankarana National Park, people there still feel pressure from ANGAP, including restrictions on natural resource extraction from protected areas and the resulting punishments like large fines or imprisonment for certain unsustainable activities.

After talking with several people, we began to understand more about the small town and how different people living there view conservation and lemurs specifically. We learned that traditional customs and beliefs are changing in the area. Some people still acknowledge past customs, while others have never heard of them. We also found that people are not very concerned about "Big Conservation" projects, like those formed by ANGAP, because they feel as though these projects provide no benefit to their community. The different beliefs and values we encountered among the people of Antsaravibe helped us to realize the importance of understanding how people think and feel before implementing large conservation projects in their region. It should be noted, however, that some interview responses were very vague, and if informants appeared to be uncomfortable with the questions, we did not press them further. The information gathered from the local people during this study is presented in as accurate a manner as possible for the purpose of preserving fidelity. Consequently, the following discussion of interview responses may appear to be ambiguous at times. Furthermore, all of the informants' identities in this paper have been protected for privacy reasons.

***Conversations in Antsaravibe - fiainana***

To demonstrate the importance of obtaining local knowledge when forming a conservation project, some examples will be used regarding *fiainana*, the Malagasy term for "ways of living" in Antsaravibe. This involves how people make a living, or what they do to gain a source of income. Based on the interviews conducted, we found that sources of income include: rice cultivation, sugar cane farming, selling goods, growing fruit such as oranges and bananas, vegetable farming, and raising cattle and/or livestock, along with some other professions, such as hospital staff and radio announcers, also being practiced. When we asked people if they were concerned about conserving natural resources such as drinkable water,

forests, and wildlife, several answered that they were not. When asked why, some responded that it is because life has become difficult and it is harder to be concerned about conserving the environment in times of economic uncertainty.

Occasionally, we also asked questions about "Big Conservation" projects such as the Ankarana National Park. A common response was that people do not take anything from the protected areas because they are afraid of being punished by ANGAP. People help conserve the protected areas, but seemingly out of fear of punishment, not necessarily because they see the benefit in conserving such places. Other people answered that they do know of people who hunt in the protected areas, sometimes for lemurs specifically. Still others indicated that while they do not hunt lemurs, they have eaten them. It seems that because the large conservation project provides no direct benefit to the local people, only punishment, people may be more likely to engage in such unsustainable resource extraction (Alcorn 1995).

In addition to this, "Big Conservation" projects in Madagascar sometimes assume that local people will not hunt lemurs because of local *fady* (taboos) that occasionally prohibit such behaviour (Keller 2009). Specifically, *fady* are taboos that Malagasy people hold that can involve food consumption, work habits, sacred places, and other various aspects of daily life. There are a number of common *fady*, but people usually have their own unique combination of *fady* that they follow. Since *fady* often involve restrictions on the consumption of certain animals, "Big Conservation" organizations may come to the conclusion that *fady* work in favour of their conservation efforts. However, as Keller (2009) points out, *fady* are not necessarily acknowledged by everyone and can change in just a few years. Marie Ange and I asked many people in Antsaravibe if they knew of any *fady* regarding lemurs. The majority of the responses were negative. People claimed that if they do not touch lemurs, it is not because of *fady* but because they wish to avoid punishment from ANGAP. Some of the elderly people we interviewed do remember lemur taboos at some point in time but stated that they are not common taboos today. We were also told that because lemurs are similar in appearance to humans, this is why they were once considered *fady*.

There are taboos against the consumption of other animals as well, such as goats, pigs, eel, and certain species of birds, but these differ among individuals and households. Many adults told us that they would like their children to follow the *fady* that they themselves followed; however, because it is becoming increasingly difficult to make a living, parents are reluctant to have their children suffer additional hardships that might be inherent in following a taboo. Therefore, *fady* seem to have a declining influence among the people in this area in conjunction with younger individuals being less likely to continue or adopt the *fady* of their parents or of elders. We did however note that this process can actually work in the opposite direction with younger generations that voluntarily adopt *fady* that have not been forced upon them by their elders. This information reveals that changes in *fady* could indicate a disparity between generations as people are becoming more inclined to do what makes life easier for them and less inclined to follow traditions – many of which, coincidentally, involve respect for and the conservation of wildlife.

***Diversity within Antsaravibe***

When thinking about conservation perspectives and practices, it is also important to realize that local groups are very distinct from one another in their outlooks and that a diversity of viewpoints

can even be found within a related group of people (Sandy 2006). It is a difficult task to learn more about local beliefs and customs when the people you talk to may not represent the whole community (Gezon 1997b). It is important to note this diversity because, as the interviewed responses below demonstrate, showing some of the diversity of beliefs about conservation is useful for understanding the range of implications that conservation efforts have on communities.

As mentioned previously, we asked several people if they were aware of any lemur hunting in their region. We received many different responses. Several of the elder individuals we interviewed in Antsaravibe stated that people living in that area do not hunt or even touch lemurs at all. Some said this was because of ANGAP, others because of the resemblance lemurs share with humans. One adult we interviewed said that people occasionally catch and consume lemurs but that it is only by accident – the goal is not to catch a lemur but another animal. Another adult told us that a few people go out purposefully to hunt lemurs all the time and that, although those people also fear punishment from ANGAP, they continue to hunt because it helps them to make a living. Some people said only *vahiny* (outsiders) hunt lemurs, while others said that only the people native to the area hunt lemurs. The variety of responses we encountered indicates that it is important to understand all points of view before designing a conservation strategy. Any one of these local viewpoints standing alone would cause a misrepresentation.

We also asked several people about lemurs and why they think conservation organizations want to protect them. A few people said lemurs have some importance because when they defecate, they spread seeds which help the forest to grow. They also added that if a person is lost in the forest, they know it is safe to eat any food the lemurs eat since they are so similar to humans. Additionally, some mentioned the spiritual significance of lemurs as another reason to protect them.

The majority of the people we interviewed, however, did not see the benefit in protecting lemurs. Many people stated that the zebu (a type of domestic cattle) are the most important animal, and after that are the chickens, pigs, goats, cats, and other domesticated animals. Lemurs do not have much significance in the everyday lives of the people who live in Antsaravibe. While some people see the benefits of protecting a non-domesticated animal, others do not. This is significant in regards to conservation projects because it shows that in order to decrease lemur hunting, it is necessary to provide education to the local people. This would lead to an understanding as to why locals should help protect the lemurs and how conservation projects can directly and indirectly benefit the people in both the short and long terms (International Primatological Society 2011). Furthermore, local values and customs should be communicated to the larger conservation organizations so that the views of the people living in the area can be integrated and accounted for within conservation strategy designs.

### *Discussion and conclusion*

The information collected through interviews in Antsaravibe is only one small example that demonstrates why it is important to have knowledge of the local ways of living when forming and enacting effective conservation plans. As previously discussed, there continues to be a considerable disregard for culture and local ways of living in the development of conservation strategies in Ankarana. Part of this is because the natural environment has been treated as though it is independent of the local people. Yet the local people are constantly engaging with the environment

on a daily basis and are thus particularly well-placed to contribute to conservation projects in a positive way. Conservation strategies that overlook culture in favour of nature usually end up undermining the local people, and as a result, producing overall negative conservation outcomes.

The people of Antsaravibe and other nearby towns are capable of, and critical of aspects within "Little Conservation", which occurs at the local level. Without their participation, conservation strategies are unlikely to succeed. The "Big Conservation" organization, in this case ANGAP, needs to integrate local values and beliefs within the conservation plans with the help of anthropologists and primatologists. Learning how people interact with their environment provides a good basis for the next step: engaging the participation of local people in efforts to protect the local environment. Culture and nature are in a state of constant interaction, and so it is necessary to consider both when developing conservation projects.

It may be that "Big Conservation" organizations assume that local beliefs are being taken into consideration when they assume that *fady* work in favour of conservation (Keller 2009). Yet as I have shown, viewpoints can differ greatly even within a relatively small group of people. This illustrates some of the potential difficulties to the formation of conservation strategies. For example, if only a few people were interviewed, perhaps only the people who claimed that no one touches the lemurs, it would give the incorrect impression that the conservation strategies are working. On the other hand, if only the people who stated that lemur hunting occurs all the time were interviewed, additional restrictions on resource use might be implemented. These results would be based on misrepresented viewpoints and contribute to ineffective conservation strategies. Therefore, it is important to recognize the diversity of viewpoints of the locals because an inappropriate action plan could have severe consequences for the environment and for the local people. Understanding this, qualitative research conducted by anthropologists and primatologists would be ideal in providing "Big Conservation" organizations with a more accurate representation of local viewpoints.

As shown previously, if conservation strategies are not beneficial to the local people, or if the people lack the knowledge or understanding behind the reasoning, locals will not see the purpose. This will likely drastically affect the success of the implementation of any such strategy. It is important to know how the people feel and what they believe. It is important to know that many are concerned about the increasing difficulty of life, because this is indicative that environmental conservation may not be a high priority in their minds. We must note the variety of feelings and outlooks towards local species; some people have *fady* that work in favour of conservation while others do not, and this means we cannot rely on *fady* alone to conserve (Keller 2009).

The information gathered from the local people in Antsaravibe provides us with some insight into the many factors that must be considered when trying to maintain protected areas. Anthropological research is invaluable for the contributions it can make towards preserving the biodiversity of Madagascar without disrupting the lives of the local people and ensuring that locals have an active participant role in the conservation of their own ecosystems (Quiatt and Koster 1994; Riley 2006; Sponsel 1997).

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